

of exceedingly attenuated but solid strata, is considered as proved by facts, some of which are quoted in the *Giornale di Fisica* for 1824;¹ and though the theory requires that they should assume this state at high temperatures, and though the *similar* films of aqueous and other matter are dissipated by the action of heat, still the facts are considered as justifying the conclusion against all opposition of reasoning.

350. The power or force which makes combustible gas or vapour abandon its elastic state in contact with a solid, that it may cover the latter with a thin stratum of its own proper substance, is considered as being neither attraction nor affinity. It is able also to extend liquids and solids in concrete laminae over the surface of the acting solid body, and consists in a *repulsion*, which is developed from the parts of the solid body by the simple fact of attenuation, and is highest when the attenuation is most complete. The force has a progressive development, and acts most powerfully, or at first, in the direction in which the dimensions of the attenuated mass decrease, and then in the direction of the angles or corners which from any cause may exist on the surface. This force not only causes spontaneous diffusion of gases and other substances over the surface, but is considered as very elementary in its nature, and competent to account for all the phenomena of capillarity, chemical affinity, attraction of aggregation, rarefaction, ebullition, volatilisation, explosion, and other thermometric effects, as well as inflammation, detonation, etc., etc. It is considered as a form of heat to which the term *native caloric* is given, and is still further viewed as the principle of the two electricities and the two magnetisms.

351. I have been the more anxious to give a correct abstract of Dr. Fusinieri's view, both because I cannot form a distinct idea of the power to which he refers the phenomena, and because of my imperfect knowledge of the language in which the memoir is written. I would therefore beg to refer those who pursue the subject to the memoir itself.

352. Not feeling, however, that the problem has yet been solved, I venture to give the view which seems to me sufficient,

upon *known principles*, to account for
the effect.
353. It may be observed of this action,
that, with regard to
platina, it cannot be due to any peculiar,
temporary condition,
either of an electric or of any other
nature: the activity of plates
rendered either positive or negative by
the pole, or cleaned with

¹ pp. 138, 371.

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